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THE IDEALIST TO THE REALIST[1]

THIS paper attempts to consider briefly both the contemporary criticisms on idealism and the constructive theories advanced by the neo-realists.

I

The recent criticisms of idealism may be grouped under three main heads: first, those which oppose idealism on the ground that it is subversive of some important system of beliefs; second, those which charge idealism with fundamental inconsistency; and, third, those which claim that idealism is based on unjustifiable assumptions.

1. The charge that idealism flies in the face of common sense, of science, and of logic reappears in the writings of many realists. In the words of Professor Woodbridge, idealism "forces upon one a view of things which is not an extension and a refinement of [the] natural, instinctive view, but a radical transformation of it."[2] And Professor Spaulding introduces his summary of realistic doctrine with the statement that realism "agrees with common sense and with science."[3] In answer to this charge that idealism does not agree with "common sense" it may first be pointed out that final judgment on a technical system can not be passed on the basis of its agreement with popular beliefs. It would go hard with the scientists were ultimate physical theories thus rated; and constructive realism, as will later be argued, would fare no better.[4] But the idealist need not content himself with this protest. There is much to favor the view that primitive philosophizing is rather spiritistic than materialistic. All children personify the stubborn walls and

[1] Paper, with slight changes, read before the American Philosophical Association in Princeton, New Jersey, December 27, 1910.

[2] "The Problem of Consciousness," in *Studies by Former Students of Charles Edward Garman*, p. 146.

[3] "The Program and First Platform of Six Realists" (after this cited as "Program"), this JOURNAL, 1910, Vol. VII., p. 400. *Cf.* W. B. Pitkin, *ibid.*, p. 398.

[4] *Cf.* page 456, below.

doors with which they come in contact; and the facts of magic, of fetichism, and of nature-worship indicate that realities which everyday dualistic philosophy conceives as non-ideal were regarded by primitive men as spiritual beings. In other words, the argument from instinctive belief, were it admitted, would not tell unambiguously for the non-idealists.

With even greater vigor, since the days of Berkeley,[5] it has been urged that idealism is opposed to the results of scientific investigation. Woodbridge speaks of "the contrast which the content of natural science presents to idealistic philosophy,"[6] and Pitkin claims for realism that "it is logically demanded by all the observations and hypotheses of the natural sciences including psychology."[7] I shall, however, postpone a consideration of these claims to the second part of this paper, where I shall seek to show that all actual scientific constructions may be, and should be, idealistically conceived.

A third argument, precisely parallel with those now under discussion, claims for logic an axiomatic value, and argues against idealism as violating sundry rules of logic or as unconformable to certain logical procedures. A large part of the "Program and Platform" recently published by "six realists" is taken up with this argument from the incompatibility of idealism with logic. Thus Professor Marvin says: "There are certain principles of logic which are logically prior to all . . . metaphysical systems."[8] The idealist accepts this statement, but insists that the fundamental principles of logic, to which only it applies, can not by any chance be essentially opposed to idealism, since logic is no more nor less than a systematic formulation of the laws of consistent thinking. Thus the idealist finds, in the assertion just quoted, an implicit opposition to materialism and no argument whatever against idealism of any type. The alleged oppositions of logic to idealism consist, in fact, in the selection of some empirical and subsidiary logical principle and in the demonstration of its incompatibility with idealism. Perry's "ego-centric predicament" is the cleverest and most unblushing instance which I know.[9] Admitting that the *I* is a peculiarly ubiquitous fact which "can not be eliminated from one's field of study," he insists that this "mere fact" must not be allowed to weigh in our calculations, since it can not be investigated by the "method of agreement and difference." This is a startling instance

[5] "Principles of Human Knowledge," paragraphs 50, 58.

[6] *Op. cit.*, p. 150.

[7] "Program," p. 398.

[8] "Program," p. 395 (3).

[9] This JOURNAL, 1910, Vol. VII., pp. 5 ff.

of readiness to sacrifice empirical fact—admittedly universal—to methodological theory. The method of agreement and difference is a way of studying the relations of such phenomena as are difficult of observation because they are not always present. And yet we are called upon to eliminate from our philosophy an ever-present fact, the ego, because just this, its ubiquity, prevents our studying it by a logical method invented as an aid in the investigation of inconstant phenomena. Thus, to sum up our reply to this criticism: idealism can not be contradictory to the fundamental laws of logic, for these are laws of mental self-consistency. And subsidiary logical "laws" and "methods" are neither sacrosanct nor axiomatic.

2. We turn now to consider the alleged inconsistency of the idealistic position. It is urged by contemporary realists, as by those of Berkeley's day, that the distinction actually made by idealists between subject and object, percept and image, is possible only on the supposition that non-mental reality exists.[10] The idealist admits that he makes this distinction. He, like other men, recognizes a difference between present and external, and merely imagined, objects. But he distinguishes the two kinds of things, not as extra-mental and mental, but as objects respectively of his shared and of his unshared consciousness, or as objects of one self and of many selves. His desk is an external thing because it is actual or possible object of many selves' consciousness; the scene which he is now *imaging* and *not describing* is not external because it is the object of his private, unshared consciousness.[11]

This idealistic theory of perception, presupposing as it does the existence of many selves, has, however, to take account of a second and more important charge of inconsistency. Idealism, it is urged, is necessarily solipsistic. The basal tenet of idealism, the critics insist, is the peculiar or unique certainty of the existence of myself, a single conscious self. But the idealist (so the realists point out) who refuses to argue from this certainty of his own existence to the existence of extra-mental objects is equally debarred from arguing to the existence of selves external to him. This objection has been urged by Mooore,[12] by H. W. Carr,[13] by Perry,[14] and by others.

I shall not pause to criticize any details in the different state-

[10] For elaborations of this argument, *cf.*, among others, Fullerton, "A System of Metaphysics," pp. 99 ff., 117 ff., 367–368; and G. E. Moore, *Mind*, 1903, N. S., XII., pp. 433 ff.

[11] At least one realist, W. P. Montague, makes this distinction among others, between perception and imagination. *Cf.* "Consciousness as Energy," in "Essays in Honor of William James," pp. 108–109.

[12] Proceedings of the Aristotelian Society, 1905–1906.

[13] *Ibid.*, 1907–1908.

[14] "The Hiddenness of Mind," this JOURNAL, 1909, Vol. VI., pp. 29 ff.

ments of this argument because I am, for myself, prepared to accept its main conclusion. I believe, in a word, that solipsism is a sharp horn of the pluralistic idealist's dilemma. To the monistic idealist, on the other hand, it presents no unavoidable difficulty. For the monistic idealist's position is, in brief, the following: In being conscious of myself I know myself as limited, thwarted, circumscribed. But one can not know oneself as bounded without knowing the existence of a boundary; and to be aware of a boundary *as boundary* one must be aware of a something beyond. That is to say, in the experience of my narrow, single self, I experience also a somewhat-beyond-myself. And when I reflect on the nature of this somewhat-beyond, I must conclude that the distinction between it and me is partial, or relative, since between ultimately separate realities there can be no relation and consequently not the relation of knowing.[15] This something-beyond-myself, therefore, which I directly experience in being conscious of my self-limitation, must be like me, must—in other words—be other-self.

But it is high time to come to closer issue with our antagonists. Their most fundamental criticisms have yet to be stated. They argue that idealism is based on unjustified assumptions, of which the first is the assumption that an object, because known, is therefore mental in nature. The realistic position is curtly stated by Holt:[16] "The entities (objects, facts, *et caet.*) under study in logic, mathematics, and the physical sciences are not mental in any usual or proper meaning of the word 'mental.' The being and nature of these entities are in no sense conditioned by their being known."

This is an accurate and an uncompromising statement of the difference between the two parties. For the idealist does hold as fundamental just this doctrine which the realist attributes to him, that is to say, he believes that objects, as known, are mental. But he does not regard this belief as an assumption. He holds, on the contrary, that a close examination of the objects of logic, of mathematics, and of the physical sciences discloses their ideal character. The following, in brief, is the result of the idealist's empirical study of the known object: An object of physical science contains one or all of the following characters: (1) sensible qualities, as extension, motion, weight, color, sound, fragrance, etc.; and (2) relations, as spatial and temporal positions, permanence or impermanence, likeness and difference, degree, singleness or multiplicity or totality. Objects of logic and of mathematics differ from every-day "physical

[15] The realist denies precisely this statement. I am not here attempting to argue the point, but merely to outline the teaching of a form of idealism which is not solipsistic.

[16] "Program," p. 394, I., 1. *Cf.* Marvin, *ibid.*, p. 395, 8.

objects'' in that they consist exclusively in relations. The idealist *discovers* by examination of objects—he does not (as the realist accuses) *assume*—that both sense qualities and relations are mental. The following paragraphs will amplify this brief account from the idealist's standpoint of the known object.

The idealistic view of sense qualities must first be considered. It is of utmost importance to state clearly that the contemporary idealist abandons some of the traditional arguments for his doctrine. He realizes that Berkeley's objection to distinguishing primary from secondary qualities may as well be turned to favor materialism as to favor idealism. And he admits (as indeed Berkeley admitted) that the argument based merely on the variableness of qualities—according as the percipient is sick or well, warm or cold, distant or near, and the like—does not prove, even though it suggests, the ideality of objects.[17] But the idealist rests his case not on reasoning of this sort, but on the *results of direct observation* coupled with *the inability of any observer to make an unchallengeable assertion about sense qualities save in the terms of idealism.* To be more explicit: the idealist demands that his opponent describe any immediately perceived sense object in such wise that his description can not be disputed. The realist describes an object as, let us say, yellow, rough, and cold. But somebody may deny the yellowness, the roughness, or the coldness; and this throws the realist back on what he directly observes, what he knows with incontrovertible and undeniable certainty, namely that *he is at this moment having a complex experience* described by the terms yellowness, coldness, and the like (an experience which he does not give himself). This statement, and only this, nobody can challenge. And this statement embodies the result of immediate experience.

The idealist next subjects the relation to an analysis parallel to that of the sense quality. The realist, when challenged to describe his object-as-related, has said (we will suppose) that it is a sphere three inches in diameter, the fruit of a tree whose seed he saw planted two years ago. But what, asks the idealist, *are* ''spherical form,'' ''two years,'' ''the relation of fruit to seed''? Once more, all that the realist is immediately sure of—all that he can maintain in case his assertions are disputed—is that he has certain experiences indicated by the words he has used.

And if the realist seek to escape this conclusion by arguing that the real object is the object as *inferred*, and that (though the char-

[17] ''Principles,'' paragraph 15. For an ''effective presentment of the case for realism'' which spends its whole force in criticism of this argument from the variableness of qualities, *cf.* T. P. Nunn, ''Are Secondary Qualities Independent of Perception?'' *Proceedings of the Aristotelian Society*, N. S., X., 1909–10.

acters of the object as immediately known are mental) yet the characters known through inference are, or may be, extra-mental—the answer will be plain: Qualities and relations are the only discovered factors of objects as known. The inferred object itself must, therefore, consist in relations, in sense qualities, or in a combination of the two; or else it is an object of unknown nature.[18] The immediately following paragraphs will consider the possibility of the existence of unknown objects, but the present discussion concerns objects as known. And these objects, analyzed into their constituents, have been found—not assumed—to be forms of experience.

A final charge remains. The second of the alleged assumptions of idealism is to be refuted. All that precedes has concerned objects-as-known. The realist now insists that the idealist has in any case no right to assert the non-existence of unknown objects. To quote Professor Montague: The intuitional argument of the idealists "consists of a confused identification of a truism and an absurdity. The truism: *We can only know that objects exist when they are known.* The absurdity: *We know that objects can only exist when they are known.* . . . It is to the failure to perceive [this fallacy] . . . that idealism owes its supposedly axiomatic character."[19] In other words, the fact that the objects of our knowledge are, as such, *known* is no reason for asserting that objects can not exist unknown. I propose to deal with this argument very simply by admitting its contention, but, at the same time, pointing out that, kept within its proper limits, it is utterly insignificant. As an idealist, I agree to check myself in every exuberant denial of the possibility that unknown extra-mental objects exist. But I do not hereby recant my idealism. For the truth is that the hypothetical unknown, extra-mental reality is utterly negligible. Such an x, an utterly unknown extra-mental object, is not the object of physical science, of logic, or of mathematics; it does not consist in sense qualities—that is, it is not extended or in motion, colored or sounding; it is not a relation—that is, it is not a substance, or a thing, or a cause, or a reality, or an entity, or a term, or a function. In a word, it is more than negligible, it is necessarily left out of account by men with only ordinary human endowment. Such an extra-mental reality is indeed unknowable, since it is by nature unknown. Therefore the thinker can have no concern with it and, of all people, the realist of to-day, whose fetish is logic, should eschew illicit commerce with the inconceivable and the indefinable.

[18] *Cf.* Fullerton, *op. cit.*, pp. 52 ff., 117, 147, *et al.*

[19] "Program," p. 396.

II

We have so far been concerned with the criticisms of the realists on idealism. It is fair now to ask for their positive doctrine. And it must be confessed that the realists are more lavish of polemic than of constructive formulation. It is hard, for example, to understand why the six realists call their program a "platform"; for it clearly sets forth what they avoid, but gives no hint where they stand. And, to take another example, that subtle realist G. E. Moore is far more concerned to demonstrate that *esse* is not *percipi* than to tell what *esse* is. Other realists offer definitions so tautological or so self-contradictory that it is hard to take them seriously. Fullerton, for example, the dualist who takes the short-cut to realism just before reaching the end of the road to idealism, defines non-external reality in two ways. He says, most often, that the external thing is the phenomenon "in the objective order" [20]—as much a truism as if he should say that the external thing is external. But he earlier describes the external world as made up of sensations "abstracting from the relation of knowledge" [21]—which is as inherently incredible as if one should speak of ether vibrations abstracting from motion.

The implication of most neo-realistic writers is, however, that all reality is describable in terms of the physical sciences. When, for example, Woodbridge conceives of the universe as a complex of terms and relations, and counts consciousness among these relations as coordinate with space and time,[22] he is properly interpreted by Montague as assuming that the terms to which the relations are subordinate are physical, not psychical. More specific is Montague's conception:[23] Following Ostwald, he describes the universe in terms of energy and conceives the distinction between physical and psychical as identical with that between kinetic and potential energy.

Before entering on a discussion, necessarily condensed, of the "real" conceived as physical, a preliminary remark should be made: It should be pointed out that the realist has no right to the implication that in rejecting idealism and adopting a physical form of realism he finds ready-to-hand a compact system of ultimate physical doctrine. On the contrary, the physicists of one group, headed by Pearson and Mach, are frankly idealistic, reduce facts of science to contents of the mind, describe physical realities as made up of sense impressions, and define scientific law as "mental short-

[20] "A System of Metaphysics," pp. 372 ff.

[21] *Ibid.*, p. 118.

[22] "The Problem of Consciousness," in "Garman Studies," p. 159.

[23] "Consciousness a Form of Energy," in "Essays in Honor of William James," pp. 105–134.

hand."[24] Still other scientific conceptions, whether realistically or idealistically interpreted, turn out to be mere tautologies. Such are Clerk Maxwell's definitions of matter as that which may have energy communicated to it, and of energy as that which passes from matter to matter.[25] This is to the full as illuminating as Oliver Herford's "Alphabet of Celebrities":

> Q is the Queen, so noble and free;
> For further particulars look under V.
> . . . . . .
> V is Victoria noble and true;
> For further particulars, look under Q.

It is not fair, of course, to dwell on so palpable a slip in the provisional definitions of a book no longer new. But Whetham, writing only a few years ago, finds in recent theories the same tendency to circular definitions and to explanations which are not ultimate. "The success of such theories," he says, "does but shift the mystery of the unknown. Matter is a persistent strain-form flitting through a universal sea of ether: we have explained matter in terms of ether. Ether in its turn is described as a fairly closely packed conglomerate of minute grains in continual oscillation. We have explained the properties of the ether. . . . But what of the grains of which the ether is composed? . . . Has a new ether more subtle than the first to be invoked to explain our properties, and a third ether to explain the second? . . . An ultimate explanation of the simplest fact remains, apparently forever, unattainable."[26]

This reminder that no realist may find refuge from the tempest of conflicting metaphysical views in a sanctuary of fixed and satisfying physical doctrine, is, however, preliminary only to the opposition of idealist to realist. The idealist, in fact, maintains that so-called physical reality, however conceived, reduces to sensible quality, to relation, or to a combination of the two; or else reduces to utterly unknown reality. Quality and relation, he has already argued, are ideal; and neither the every-day man, the scientist, nor the philosopher is concerned with that whose nature it is to be unknown. This idealistic teaching should be restated in its application to specific realistic conceptions.

1. The physical universe may be regarded as made up of molecules and atoms. Now the molecule and atom are often conceived as extended things. "The atom," to quote Fullerton, "is not directly perceivable by sense, but it is conceived as though it and its motions

[24] "The Grammar of Science," Ch. VII., Sec. 3.

[25] "Matter and Motion," quoted by Pearson, *op. cit.*, p. 245.

[26] W. C. D. Whetham, "The Recent Development of Physical Science," 1904, p. 294.

were thus perceivable."[27] The underlying character here is the spatialness, and the argument, already outlined, concerning concrete sense objects, shows equally that atoms and molecules, as spatial, are ideal. The modern conception of the atom as a complex of subatoms, centers of negative electricity in a sphere of positive electrification, reduce to the conceptions of spatial position, of motion, and of force.[28]

2. A second view of the universe as ultimately physical conceives it as ether. By ether is meant a continuous and incompressible medium. But continuity is obviously spatial, and incompressibility is tangible. Moreover the ether is regarded either as (*a*) containing or as made up of moving particles—in other words, of spatial and tangible realities—or else as (*b*) pervaded by strain-forms. In either case the conception of ether includes that of motion—and motion is succession of positions, that is, a complex of spatial quality and temporal relation. In the whole conception there is, for the scientist, much difficulty in meeting the rival requirements of the groups of facts which ether is hypothesized to explain; but no description of the ether in other than terms of sensible quality and relation has ever been put forward.

3. We turn finally to the conception of the universe as a complex of different sorts of energy. Here, too, we find the physicists at odds among themselves. Energy is usually defined as capacity for work. Narrowly scrutinized, this statement means simply that energy is conceived as the further undefined cause of phenomena; and energy is thus reduced to a relation, causality, already claimed by the idealist as ideal. Many of those who conceive of reality as energy, seem, however, to mean by energy force. But force is defined in one of three ways: either as resistance, a quality directly revealed through muscular sensation; or as cause of motion; or as no more nor less than a mathematical ratio, a measure of motion—the force of *B* on *A* being defined as "the product of the mass of *A* into the acceleration of *A* due to the presence of *B*."[29] But each one of these is a conception of ideal, not of non-ideal, reality. A mathematical relation is a mental conception; the resistance or stress which (to quote Montague) is immediately felt when a man places "his hand between a fixed spring and a body moving uniformly into collision with it," is a sensible quality; and motion, as has appeared, is made up of spatial quality and of temporal relation.[30] All this is virtually admitted by many phys-

[27] "An Introduction to Philosophy," p. 22. *Cf.* p. 66; and *cf.*, also, "A System of Metaphysics," pp. 143 ff.

[28] *Cf.* the two following paragraphs.

[29] Pearson, *op. cit.*, Ch. VIII., Sec. 9, p. 304.

[30] "Consciousness as Energy," *op. cit.*, p. 125.

icists.[31] "Energy is an ideal quantity," says Newcomb.[32] "To gain an idea," Ostwald declares, "of the content of the concept of energy, we will start from the fact that we are able . . . through our will, to call forth occurrences in the external world."[33]

From considerations such as these the idealist refuses the lure of the realist's pretension to the authority of science. For the hypothesized realities of the physical scientists are one and all reducible to the negligible unknown or else to a complex of sensible quality and relation. "Descend, then," says the idealist to the realist, "from hypothesis to fact. Do not talk about vortex-ring, and electron, and ether, and energy, until you have first discussed the terms to which these reduce: the sensible qualities and complexes—extensity, resistance, motion—and the relations—cause, multiplicity, oneness, and the rest. You can give no unchallenged account of these qualities and relations, except as distinctive ways of experiencing, that is, of being conscious."

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DISCUSSION

PROFESSOR DEWEY'S "ACTION OF CONSCIOUSNESS"

IN a footnote on page 69 of "Essays Philosophical and Psychological in Honor of William James," Professor Dewey says: "Of course on the theory I am interested in expounding, the so-called action of 'consciousness' means simply the organic releases in the way of behavior which are the conditions of awareness, and which also modify its content." If this is all that Professor Dewey means by the action of consciousness upon the existences which are the direct subject-matter of knowledge, there are several questions that I should like to have answered; for they have been bothering me ever since I have read the very interesting paper on "Reality as Practical."

First. How does such a theory bring about the evaporation of "the metaphysical puzzles regarding 'parallelism,' 'interaction,' 'automatism,' the relation of 'consciousness' to 'body'"? (p. 65, footnote). The organic releases in the way of behavior, we are told, are the conditions of awareness. Although elsewhere in this paper Professor Dewey defines awareness as attention, I presume that in

[31] *Cf.* S. Newcomb, in the Baldwin "Dictionary of Philosophy": "Motion is change of place." And *cf.* Hobbes, "Concerning Body," Ch. VIII., XV.

[32] "Dictionary of Philosophy."

[33] "Vorlesungen über Naturphilosophie," p. 153. I am not claiming Ostwald and Newcomb as idealists, but merely pointing out the idealistic implication of their statements.

this sentence he would mean to include consciousness in its inattentive forms also under awareness as conditioned by the organic releases. If these releases are the conditions of consciousness, they are thereby distinguished from consciousness; and they are at the same time asserted to be in a certain relation to consciousness: they are its conditions. Now the parallelist, the interactionist, the automatist, and the epiphenomenalist all agree in regarding the brain as in some sense the condition of consciousness. It is hard to see how the questions at issue between these different theorists are made to evaporate "when one ceases isolating the brain into a peculiar physical substrate of mind at large, and treats it simply as one portion of the body as the instrumentality of adaptive behavior,"—unless what is meant be that any question evaporates when it is ignored. It is true that if "the so-called action of consciousness means the organic releases in the way of behavior," there is no question as to the relation of the *action* of consciousness to other physical things. We have here just one physical thing in relation to other physical things. But if consciousness is conditioned by the "action of consciousness" (= organic releases in the way of behavior), there is a question as to the nature of this relation.

Second. In what sense can it be said that "a certain promoting, a certain carrying forward of the vital impulse, importing certain differences in things, *is* the aim of knowledge"? (p. 65). Knowledge is one kind of consciousness, presumably. Then, when we are told that the aim of knowledge is the promotion of vital impulse, are we expected to take this as meaning that the aim of the *organic releases* is to promote vital impulse? This is the most natural interpretation; for the aim of consciousness is naturally the aim of the *action* of consciousness. If this be the interpretation that we are expected to put upon this assertion, the instrumental theory of knowledge seems to be an instrumental theory of the brain; and if this be what it is, I suppose that all of us would subscribe to it. But after we have done so, there is still the further question, What is the aim of knowledge *as distinct from* and conditioned by these organic releases? This leads to the third question.

Third. If it is the organic releases that change the environment in the act of knowing, does knowing as distinct from these organic releases make any changes in the environment on its own account? If it does not, how does Professor Dewey's theory on this point differ *in principle* from that of the "program realists"? If it does, what further change does knowing make, and how is he to find out what changes are made? The method he seems to pursue is to set down the difference made by "that organic adaptation involved in all knowing" (p. 69) to the credit of knowing. Why to the credit of

knowing rather than to the credit of *that organic adaptation,* if these two things are distinct?

Fourth. If the action of consciousness is not the action of *consciousness* but that of the *organic releases* that condition consciousness, why may not things be known as they were *when* they brought about the organic discharges, as well as be known as they become *after* these discharges have in turn reacted upon these things? In other words, once distinguish between consciousness and organic releases, what justification have we for asserting that knowledge can be only of the *effects* of the conditions of knowledge? If knowledge be distinct from its conditions, should we not study it as we study anything else, not confining ourselves entirely to the functions of its conditions, but extending our view to take in any possible functions it may itself have?

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SOCIETIES

NEW YORK BRANCH OF THE AMERICAN PSYCHOLOGICAL ASSOCIATION[1]

A MEETING was held on February 3 and 4, 1911, in the Psychological Laboratory of Columbia University. On the evening of February 3, a special session in memory of William James was held at the Faculty Club of Columbia University, and expressions of appreciation were given by Professors Miller, Angell, Thorndike, Jastrow, Calkins, and Dewey.

At a business meeting held on February 4, Professor R. S. Woodworth was elected chairman of the Branch, and Dr. H. L. Hollingworth was elected secretary and treasurer. On motion of Professor Dodge, the thanks of the Branch and especially of the visiting members of the Association were conveyed to the members from Columbia University for their hospitality.

The attendance was large, many members of the Association being present from a distance.

An abstract of the scientific proceedings follows.

A Report of Class Experiments on the Relation between Rate of Acquisition and Retention: NAOMI NORSWORTHY.

This experiment was undertaken by 83 students in educational psychology. The material used was a German-English vocabulary

[1] The tardy appearance of this report is due to the failure of some contributors to the meeting to send abstracts of their papers promptly to the secretary.

of 1,200 words. The subjects studied 20 minutes a day for five days, learning in each study period at least 40 words and as many more as possible. This was repeated a second and third time. Two or three days after the third week's work, a test list of 50 words was given. These words were chosen from the number studied three times by every student. This test was repeated with a different list of words, after a month's time.

The number of words learned by the subjects ranged from 177 to 923, the median being 468. The half of the class which learned the greatest number of words remembered 70 per cent. at the first test and 73 per cent. at the second. The lower half of the class scored 52 per cent. and 47 per cent. at the same tests. The group which learned over 700 words remembered 76 per cent. and 78 per cent. when tested, while those who learned less than 300 words remembered only 46 per cent. and 36 per cent.

These experiments give evidence that those who memorize most quickly, and who therefore learn the greatest number of words in a given time, are also the ones who retain the largest proportion of what they have learned.

Feeling and Recall: E. N. HENDERSON.

In "trial-and-error learning" we tend to eliminate disagreeable reactions and to retain only the agreeable ones. Do we similarly tend to forget disagreeable experiences? To settle this it is necessary to distinguish experiences disagreeable when they occurred, but which it is not disagreeable to recall, from unpleasant memories. On the question whether we forget the disagreeable, experiment seems to offer a negative answer. Ten persons were experimented with. It was found that of experiences recalled at random from the past, 55.1 per cent. were originally agreeable, 11.8 per cent. indifferent, and 33.1 per cent. disagreeable. The average deviation of individual results from these percentages was small, being for agreeable experiences 6.7 per cent., for indifferent ones 4.6 per cent., and for disagreeable ones 4.7 per cent. It would seem that the proportion of disagreeable to agreeable experiences in the average life would be smaller than that of 33.1 per cent. to 55.1 per cent. In that event the experiment would indicate that we remember more of the disagreeable.

As to banishing disagreeable memories, it is likely that the tendency exists to some extent. However, every one knows that such ideas may rise insistently into consciousness. We endeavor to modify the situations with which they are related if these persist, or to interpret the situations to which they refer more satisfactorily, or, if no such solution is available, to get rid of the disagreeableness by ban-

ishing the memory. The last method is commonly only a last resort —otherwise consciousness, which exists to remedy such disagreeable conditions, would, by forgetting what it is to do, destroy its use.

The Joint Sense: W. P. PILLSBURY.

In 1902 the author published an article to show that Goldscheider's proof for the localization of the sense of movement in the joint was inadequate. Recently Spearman suggested that not sufficient positions or rates of movement had been used. Two students, Mr. Winter and Mr. Toney, repeated the earlier experiments, using four speeds and six or eight different positions of the elbow. The experiments confirmed the earlier results in every particular. Briefly summarized, the arguments against the joint sense are: (1) passing the induction current through the wrist or forearm increases the limen for movement as much as or more than passing the current through the elbow joint, at which the movement takes place; (2) no sense endings have been discovered on the synovial membrane or within the joint capsule (the organs usually referred to the joint surfaces are pacinian corpuscles in the fatty tissue near the joints); (3) introspection places the sensation in the forearm or even in the fingers. The seat of the sensations of movement is primarily in the muscles and tendons of the entire arm. These must be affected by any movement. Many subjects felt the fingers bend with flexion of the elbow. Skin and capsule and ligaments may contribute in some small degree, but are less sensitive.

Theories of Fatigue: EDWARD L. THORNDIKE.

Theories that interpret mental work and mental fatigue after the analogy of physical work and the diminution in energy caused by energy expended are radically unsound.

The differences within the same individual in different sorts of work and between different individuals in the same sort of work are not easily explainable on any mechanical theory, nor are the marked effects of interest and motive. Biological theories, whereby diminution in the work produced is a result not only of intrinsic changes in the process itself, but also of extrinsic changes or "by-products" and the negative effects of various deprivations, are more helpful.

No physical analogy is necessary in investigations of mental work and mental fatigue. Mental work is best defined as the behavior whereby certain products, such as books written, poems memorized, computations done, problems solved, and the like, are produced. Rest is best defined as the absence of such behavior. Mental fatigue is best defined as that diminution in ability to do mental work which rest can cure.

Application of the "Order of Merit" Method to Advertising: EDWARD K. STRONG, JR.

To test the reliability of the "Order of Merit" method when applied to advertising, a series of 50 Packer Tar Soap advertisements were secured. Twenty-five subjects sorted the advertisements in the order in which they would buy the soap. They arranged them into as many piles as they desired, but so arranged them that the difference in superiority of one pile over the next was just noticeable. If greater differences were noted, they were to leave as many gaps as they felt were needed to indicate this superiority. When this was finished they were asked to designate the pile, if there was such, which had no appeal at all. The highest pile was then arbitrarily assigned the value of 100, and the pile which the subject designated as having no appeal was assigned the value of zero. The remaining piles were assigned values proportionately.

The series was then arranged by Mr. E. A. Olds, Jr., of the Packer Manufacturing Company, and also by the Blackman-Ross Advertising Agency, who are now handling the company's advertising business. These two arrangements were based not on actual data but on the general experience of the firms.

Between the experimental order and either of the two orders of the advertising experts, there is a correlation of + .52, while between the two experts there is a correlation of + .64.

From the above figures we have an order of the superiority of these advertisements as to "pulling-power." We also have the amount of difference between any two advertisements.

These relationships are lower than that which has been obtained with other sets of advertisements. For example, a correlation of 100 has been obtained between the experimental order and the actual order based on the company's data with a set of lathe advertisements from the Bullard Machine Company.

Cephalic Indices in Relation to Intelligence: PAUL R. RADOSAVLJEVICH.

The author has made an extended anthropological-psychological investigation of the much-discussed question of the relation between cephalic indices and age, sex, race, social condition, heredity, and intelligence. The individuals who furnished the basis for this study were children and adults, of both sexes, educated and uneducated, European and American, aggregating 4,634 persons. All the cephalic indices studied—(1) length-breadth c.i.; (2) length-height c.i.; (3) breadth-height c.i.; (4) cephalic module; and (5) index for cephalic capacity—are based on three head measurements: (*a*) maximum length, (*b*) maximum breadth, (*c*) maximum height,

as defined by the Martin school. The classification of the indices is based on Martin and Vierordt. Martin's instrumentarium was used in making the measurements. In grading the intelligence of school pupils several methods were used; but the following results are based on only one of these methods, consisting of a synthesis of school marks and teachers' personal judgments, with special reference to ability in mathematics, physics, and grammar (the author believing with Professor Meumann that intelligence can not be measured as a whole, but only in some of its higher capacities). When the *very* bright and *very* dull pupils are alone compared, the following differences appear:

1. Compared with the very dull, the very bright are more or less brachycephalic, at all ages from 6 to 20 years, except at 6 and 7 years, at which the very bright pupils are mesocephalic. This difference between the two classes of pupils is not one of type but of degree.

2. Very bright pupils are much more chamecephalic than the very dull ones—again a difference not in type but in degree.

3. The breadth-height index and cephalic module are about the same in both classes of pupils.

4. The index of cephalic capacity (product of maximum length, breadth, and height) seems the best cephalometric criterion. The very best pupils are emmetrocephalic from 6 to 14, and encephalic from 15 to 20 years of age. The very dull pupils are inferior in all ages tested: they are nannocephalic from 6 to 11, and emmetrocephalic from 12 to 20 years of age.

5. All these statements are based on median values only. If we take into account the maximum and minimum values, we find many exceptional cases, showing that very dull pupils may excel all very bright pupils in every cephalic measurement, and *vice versa.*

The System of Habits and the System of Ideas: ROBERT MACDOUGALL.

The general character of mental development may be described as adaptation. It involves two factors, a form of response already established and an activity tending to modify it in conformity with a variation in the system of stimuli. The former is reflected in habit, which represents the elements of permanence in experience; the latter appears in attention and the systematic consciousness to which it leads, and reflects the margin of variability in experience. The terminus towards which the process of habituation moves is unconscious automatism. The system of ideas exists only in so far as the conditions of habit-forming fail within any given field. In the universe of experience the system of habits gives to ideal activity its

point of origin and direction; the system of ideas gives to habit a telic value, and maintains its commensurability with an enlarging environment. Without habit, experience would be an irrational chaos; without ideas, it would have no existence, since the term is predicated only when adaptation constitutes an ideal process determined by a specific aim and a sense of value. Normal development, therefore, is that process of change which leads towards a more complex synthesis of habit-modes and a widened ideal horizon; and the highest type of self is that in which a life of the most intense intellectual activity finds at once its basis and its object in the fullest organization of experience in significant reactions of the will.

Vicarious Functioning of Irrelevant Imagery: H. L. HOLLINGWORTH.

Observations of waking moments, the drowsy consciousness, and dream states, indicate that any sensory element—imaginal, perseverative, or immediately sensory—may serve to carry forward thought processes to which they are intrinsically unrelated. Association tracts, the activity of which may underlie the consciousness of relation, can only function as connecting lines between two end processes. But any sensory process available at the time may discharge into association tracts already functioning. This paper will appear entire in a later issue of this JOURNAL.)

Historical Note on the Psychology of Relations (1): R. S. WOODWORTH.

The "ideologists," flourishing in Paris at about the opening of the nineteenth century, while holding with Condillac that all thinking is sensing, recognized several classes of "sensations" or feelings. Thus Destutt de Tracy, perhaps the first, spoke of four kinds of sensations: sensations proper, memories, judgments or feelings of relation, and desires. His successor, Laromiguière, accepts practically the same division, and his arguments in favor of feelings of relation read very much like those of Ehrenfels in favor of Gestaltsqualitäten. The same can be said of the Scotchman, Thomas Brown, a contemporary of Laromiguière.

Interpretations of Imageless Thought (2): R. S. WOODWORTH.

Imageless thought, as a gross and approximate fact, seems to be accepted; but its interpretation is much in doubt. One interpretation (Miller) lays stress on bodily sensations which may accompany an otherwise unconscious process of thought. Another interpretation (Wundt) speaks of blended incipient images, unrecognized at the moment of "imageless" thought, but filing successively into clear consciousness, as words, etc., during the following moments. One interpretation (Titchener, Book) holds that, with familiarity, a thought may tend towards automatism, and thus become nearly

unconscious, or, in other words, "imageless." In opposition to these negative interpretations, the speaker offered the positive conception of "thought elements," according to which every relation or pattern apprehended was, dynamically, a unit of reaction, and, descriptively, a new event in consciousness, involving fresh content not otherwise to be experienced except in the apprehension of that particular relation or pattern.

A Plan for the Experimental and Observational Study of the Efficiencies of Normal, Subnormal, and Supernormal Individuals: J. E. W. WALLIN.

The paper outlined a plan for the study of the problems of human efficiency recently adopted in the psycho-clinical laboratory of the New Jersey State Village for Epileptics. The scheme comprehends a survey of the *intellectual* efficiency of normal and abnormal individuals by clinical and experimental methods (the Binet-Simon tests, a set of serial group tests of the growth of various mental capacities, etc.), and by observational methods (school efficiency reports by teachers); a survey of the *motor-industrial* efficiency by the method of observation (industrial efficiency reports by officers, supervisors, and attendants); and a study of the *personal, social,* and *moral* capacities by the method of observation. It is expected that the results will supply data by means of which satisfactory schemes for the classification of defectives and diagnostic measuring scales of personal, intellectual, and industrial (motor) development may be constructed. A set of blanks were shown on which the results are recorded. All the forms in use in the institution are so made that they can be fastened together in book form, and thus supply a complete case history for each individual.

On the Question of Association Types: FREDERIC LYMAN WELLS.

An account of the tendency towards preservation of individual types in two records of the Kent-Rosanoff experiment with fourteen subjects, made over a year apart. The results show only a fair degree of fidelity to type in respect to the association time, but pronounced fidelity to type in respect to the tendency to give usual or infrequent responses (by the Kent-Rosanoff frequency tables), and also according to classification of the responses in respect to logical category. In both frequency and quality of the responses, the association test preserves a distinctness of individual type that compares favorably with many other psychological experiments. At the same time the results show that one can not ignore the possibility of personal fluctuations of considerable magnitude. In the presence of a demonstrable tendency to preserve type, extreme personal fluctuations are among the most important phases of the experiment.

The Prevention of Insanity: Hygiene of the Mind: A. J. ROSANOFF.

Insanity is very common and is apparently increasing at a rate which is about twice as great as the rate of increase of the general population.

Among the causes of insanity may be distinguished (1) those that are *essential*—heredity, alcoholism, syphilis, and head injuries—and (2) those that are merely *incidental* or *contributing;* these are innumerable, for almost any disturbing influence, no matter how slight, may determine an outbreak of insanity in the presence of one of the essential causes. The prevention of insanity consists largely in measures for combating the essential causes.

Experience has shown that the great mass of individuals, even if made fully aware of all dangers, will not practise preventive measures in any systematic manner. Dissemination of knowledge should be regarded as but a preliminary step which will make possible the application of large measures by society as a whole, and nothing less than that constitutes an effective system of mental hygiene.

Social measures which have been practised with any degree of success and which may, therefore, be recommended for more general adoption, are discussed at some length: sterilization of neurotics and defectives by the operations of vasectomy and salpingectomy, the control of retail liquor traffic by the Swedish system, the hospitalization of cases of syphilis during the period of greatest infectiousness, the employment of Ehrlich and Hata's "606," the application of prophylactic treatment according to Metchnikoff and Roux, etc.

The Use of the Selenium Cell for Measuring the Energy of Spectral Lights: JOHN B. WATSON.

Idealism, Realism and the Theory of Value: WILBUR M. URBAN.

This paper has been published in full in the *Philosophical Review.*

A Working Hypothesis for Inner Psychophysics: RAYMOND DODGE.

This paper has been published in full in the *Psychological Review.*

Some Results of the Binet Tests for the Study of Children: WILL S. MONROE.

Dream Analysis and Psychoanalysis: JOSEPH JASTROW.

A course of nine lectures by as many members of the Association was in progress at the time of this meeting; and two of these lectures, occurring on the days of the meeting, formed practically part of its program. These were:

Frailties of Imageless Thought: J. R. ANGELL.

The Standpoint and Scope of Social Psychology: MARY WHITON CALKINS.

R. S. WOODWORTH,
COLUMBIA UNIVERSITY. *Secretary.*

REVIEWS AND ABSTRACTS OF LITERATURE

Pragmatism and Its Critics. ADDISON WEBSTER MOORE. Chicago: The University of Chicago Press. 1910. Pp. xi + 283.

The general standpoint of the present volume is not far to seek. Written by one of the contributors to "Studies in Logical Theory," and dedicated to Professor Dewey, it will be welcomed as a further elucidation of the particular brand of pragmatism professed by the so-called "Chicago school." And it is perhaps not too commendatory to say that no other volume, representing this standpoint, of equal authority and importance has appeared since the publication of the manifesto of 1903—unless we except Professor Dewey's recent book "The Influence of Darwin on Philosophy and Other Essays."

The contents of the book fall into two parts: (1) a condensed statement of a course of lectures on the "Origin and Meaning of Pragmatism," delivered at the University of Chicago in the series of "Open Lectures" of the summer quarter of 1908; (2) seven articles on various phases of pragmatism which have been read before the various philosophical societies and later published in the *Philosophical Review*, the *Psychological Bulletin*, and this JOURNAL. In spite of the diversity of origin, the various chapters constantly keep in the foreground certain common problems which give unity to the volume as a whole: "(1) the historical background of the pragmatic movement; (2) the central rôle of the conception of evolution in the development of pragmatism; (3) the social, or, perhaps better, the situational character of consciousness and *a fortiriori* of thinking."

This last point, so much neglected so far, is clearly and persistently set forth throughout the volume and constitutes one of its main claims to novelty. Herein is to be found the key to the refutation of the most persistent charge brought against pragmatism, viz., subjectivism or solipsism. When the pragmatist insists upon the mediating, reconstructive function of reflective thought, this thought is immediately identified by the critics with the analytic product of physiological and structural psychology, that is, the thought processes corresponding to the brain of some socially isolated individual. But such an identification reinstates at the very outset of the discussion the very group of distinctions which pragmatism has eliminated as inadequate. "The situation is the pragmatist's absolute." Consequently, if we would understand aright the nature and function of reflective thought, we must note how it arises and operates in total situations. Then we should discover, not that thought occurs in an individual mind, but that the individual mind and thought are functions only distinguished and distinguishable *inside* the situation. And the situation, it need hardly be added, is out and out objective, the very type of an independent world.

Not only is reflective thought thoroughly social in its function—first misunderstanding of pragmatism; but not all experience is reflective or rational. So that neither is the world *idea* nor is it *my* idea.

Just what, then, is the nature and function of thinking, interpreted in

this social rôle and operating in an experience which is not rational in the sense of being constituted through and through by the distinctions of reflective thought? In answering this question we shall at the same time explain what pragmatism is and how it arose. And this answer is unequivocal. All thinking is a mode or stage of conduct; and if it be objected that conduct is subordinate to the maintenance of values, still it must be admitted that conduct is creative or recreative of such values. In fact, the materials of thought are precisely these immediate, nonrationalized values which have fallen into conflict with one another; and it is just this conflict which thought attempts to mediate or resolve. Therefore, thought is not a special instinct alongside of others, one value among other values, but the instrument for getting control over instincts and values. But how about scientific thinking? Surely this is an illustration of a special instinct finding its own special satisfaction and value in scientific knowledge, apart from and without any reference to conduct. Quite the contrary. Not only is science always pursued by men with human instincts, needs, and interests, but scientific concepts and formulæ have no meaning except in their relation to an actual efficient control of experience.

To say that all thinking is a mode or stage of conduct is only another way of saying that thinking and purposing are inseparably related to one another. Thinking is the process of "making up our minds." And if we can not go so far as to say that every judgment is a decision, at least we may say that it is a factor involved in coming to a decision. Is not pragmatism, then, only a reaffirmation of the older voluntarism growing out of Kant's "Critique of the Practical Reason"? By no means, inasmuch as pragmatism not only denies the sharp distinction between the theoretical and the practical reason, but also insists that thought's powers are equal to its demands. On the denial of this latter point all the older forms of voluntarism go to pieces.

But if this close relation of reflective thinking to concrete acting be so simple and evident, how account for the rise and supremacy throughout a goodly part of history of absolutism, especially in its rationalistic form? In order to answer this question let us appeal to history and see just how the philosophical problem was posed among the Greeks. Did systematic, reflective thought arise as a pure intellectual demand for unity? Was it not rather motivated by a demand for social control over a world whose various aspects no longer offered a stable basis for social cooperation? To this demand for unity responses were numerous. Unfortunately scientific technique was not yet sufficiently developed to put these responses to a thorough test; and in the very plethora of suggestions the basis of efficient social cooperation, the organized social world, bade fair to evaporate. At this point arose the question of the procedure and worth of knowing in and for itself, with a view to determining more effectively a set of methods for resolving the conflict and establishing again a basis of cooperation.

Now right at this point was made the fatal mistake which prepared the way for the reign of absolutism. The logical problem was ranged alongside the problems of science and social life. "Thinking is now to

be regarded as a special process coordinate with other processes, as those of fire, water, etc. As such a special process it must have a locus, it must be a function of some assignable machinery. This seemed to be individual bodies or souls, logically it does not matter much which, as the Greek soul was but a more ethereal body. Now as soon as consciousness and thought are thus regarded as a function of the individual body or soul, the differences and disagreements of opinion formerly so puzzling at once seem explained." But how can these different processes of thinking going on in isolated individuals discover or construct a basis of agreement, of social cooperation? Only by appeal to a system of rational archetypes which each has beheld in a previous vision. Thus the basis of social cooperation and the methods of maintaining it are taken entirely out of social life; and thinking takes on the peculiar function of reproducing the celestial vision. Thus was absolute rationalism enthroned and the problem of metaphysics in the historical sense posed, viz., how to maintain a world of continuity and order in the face of an individualistic theory of human consciousness.

Certain fundamental difficulties have ever beset this doctrine. In the first place, the whole process and content of life is reduced to a departure from and a return to an experience of celestial contemplation. But why the departure? How are error and evil possible in a complete, unchanging reality? To hypostatize them or to reduce them to the unreal or the illusory is not to explain them. Again, suppose that knowledge, regarded as a symbolic reproduction of an immutable reality, be accounted true when it coincides with, is identical with, or *is* reality; how is truth possible where this identity is declared unattainable? Again, how can such uneliminable ingredients of social life as instinct, impulse, emotion, and volition, to guarantee which reflective thought was invoked, find a place in a complete, unchanging reality? The failure of both Mr. Bradley and Professor Royce to solve this problem shows how hopeless is any attempt of this kind.

Now it is precisely these difficulties to which absolutism gives rise which became the negative stimulus to the development of the pragmatic movement. The positive stimulus is to be found in the exacter determination of the concept of a self-supporting, self-controlling, and self-propelling experience, made possible by the Darwinian theory of mutability; a mutability which pragmatism has conceived as responsive to human will and purpose, not set by some absolute purpose. Meanwhile the technique of the actual operation of such teleological variation was gradually being worked out in different directions: (1) logically, in the recognition of the control value of the working hypothesis in science; (2) psychologically, in the detailed analysis (*a*) of the volitional, purposive character of ideas, (*b*) of their real social character. This latter doctrine, which develops into the conception of ideation as consisting in a connection of things, is traceable back to the Hegelian process of "othering," which insists that an idea is not a mere algebraic symbol, but that it is an *act* in which things pass into new interactions. But unfortunately the Hegelian logic lacks any principle to limit or control this "othering."

Such a principle pragmatism discovers in the fact that this othering is connected with our direct experience of the value of the sound or ache or whatever other content it be, and with our desire or purpose to retain and develop that value, or to get rid of it.

How, then, do ideas "work"? Ideas mark the initiation of new connections between things. Thinking makes an essential difference to, adds something to, the things thought of or about. Even a so-called past act, in becoming known, is altered in the sense that it takes on additional functions and consequences. Knowing *is* the beginning of new interactions and new consequences, it does not simply prepare the conditions for the beginning. Knowing is our desire, our will, our practical interests getting out of ambiguity and confusion into order and efficiency.

Thus the pragmatist agrees with the realist that the world is *not* my idea, but disagrees with him and shows his sympathy with the idealist in insisting that every phase of it may be mediated *through* ideas. But when the latter maintains that thought is absolute and constitutive of all experience, the pragmatist demurs, contending that it is always and only our finite, particular, specialized thought which is operative.

Such, in brief, is the argument of the course of lectures. To outline the content of the various papers which follow were superfluous, inasmuch as three of them are reprinted verbatim from this JOURNAL and the others are equally available in the journals above indicated.

This volume is not likely to silence all the objections to pragmatism nor to convert any one with whom the spirit is not already wrestling. Strenuous as is the attempt to present reflective thought as an instrument of control and mediation in a plastic, social world, still the problem of "responsibility to the objective" does not evaporate. About this old problem of the *objective* the entire pragmatic controversy turns. Convince one that the social situation is the absolute, and that objectivity is only a distinction arising within it and applicable to some of its contents—then that other pragmatic doctrine, the purposive nature and test of truth, follows easily enough. But has Professor Moore convinced us of his first and fundamental assumption?

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Totemism: An Analytical Study. A. A. GOLDENWEISER. Reprinted from *The Journal of American Folk-Lore,* April–June, 1910, Vol. XXIII., pp. 179–293.

Since 1887, when J. G. Frazer published his little monograph on totemism, no topic in the wide field of social anthropology has aroused greater speculation and controversy amongst English and continental scholars. American students, for the most part, have refrained from general discussions of the problem, contenting themselves with the humbler but possibly more useful task of amassing the data relating to totemism within our own aboriginal area. Mr. Goldenweiser's doctoral dissertation, which was written under the supervision of Professor Boas, of Columbia, subjects the numerous theories of totemism to rigid

analysis and criticism. It is a valuable piece of work, though one could wish that its publication might have been delayed long enough for the author to examine Frazer's four massive volumes on "Totemism and Exogamy" which appeared in the same year and represent his final views on this subject. As respects many points, however, the two writers are found in substantial, though unconscious, agreement.

Dr. Goldenweiser does not profess to set forth any body of new facts dealing with totemism. His work is an essay in scientific method designed to show that previous investigators have approached the problem without due consideration of the methodological procedure involved. For this purpose he institutes a detailed comparison of the Australian and British Columbia evidence with regard to the main features commonly considered symptomatic of totemism—in particular, an exogamous clan, a clan name derived from the totem, a religious or at least friendly attitude towards the totem, prohibitions or taboos against killing or eating the totem, a belief in descent from the totem. As far as the first two of these features are concerned, he discovers only a superficial resemblance which may have been the outcome of a quite different historical development in the two regions compared. Two other symptoms, namely, taboo and descent from the totem, he finds lacking in one of the areas, totemic taboos being unknown in British Columbia, and descent from the totem being absent from several, though not all, the Columbian tribes. This variability of the supposedly permanent factors of totemism leads him to the conclusion that they are rather independent ethnic units which may enter into different combinations with one another. He points out further that actual totemism as found in the two areas considered is not limited to the features or symptoms enumerated above, since in Australia magical rites and a belief in soul incarnation assume great importance in totemic matters, whilst in British Columbia there is a marked development of decorative art and the guardian spirit idea. From all this the author argues that "totemism" presents so many differing features as to lose all scientific value as a descriptive term applicable to world-wide phenomena. We may speak, with propriety, of the "totemic complex" in any given tribe or tribes; but totemism itself is only an abstract conception expressing a relation or mode of association.

Such is Dr. Goldenweiser's most important generalization. To a certain extent he has been anticipated by Professor Frazer, who, after an exhaustive *résumé* of the evidence, concludes that exogamy is not an integral part of totemism, and further that by no means all prohibitions relating to animals are to be reduced to totemic taboos. Totemism, to paraphrase Professor Frazer, is only one of the multitudinous forms around which savage superstitions have crystallized. On the other hand, the two writers are in marked disagreement as to the actual content of totemism, since Professor Frazer, after having surveyed in some sixteen hundred pages the geographical diffusion of totemic customs, is impressed with their general similarity. Though differences of detail occur, on the whole the resemblances are so many and so close as to deserve to be classed together under a common name. Hence he defines totemism, in the last

analysis, as "an intimate relation which is supposed to exist between a group of kindred people on the one side and a species of natural or artificial objects on the other side, which objects are called the totems of the human group."[1]

We do not find that Dr. Goldenweiser, in his anxiety to prove that there is nothing of a specific character in totemic phenomena, gives proper weight to the evidence yielded by comparative studies in support of some such generalization as that which has been cited. His own definition, "Totemism is the tendency of definite social units to become associated with objects and symbols of emotional value" (p. 275), might be applied with equal validity to many other instances of the socialization of emotional values in primitive society. Thus the modern Todas have "socialized" their buffaloes and everything pertaining to the dairy; the nomadic Semites socialized the date-palm, the ancient Romans the cult of fire. It may be granted that from the psychological standpoint totemism refers to *a* process of socialization which doubtless works itself out somewhat differently in various communities and under varying situations. What has interested anthropological students, however, is the fact that over enormous regions of the savage world the outcome of this socializing process is a general similarity of the beliefs and customs commonly denominated totemic. Dr. Goldenweiser has been highly successful in pointing out what totemism is *not*—a task of no great difficulty; but there is such a thing as slurring over real and fundamental resemblances in order to emphasize minor points of dissimilarity and divergence.

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JOURNALS AND NEW BOOKS

MIND. April, 1911. *The Psychological Explanation of the Development of the Perception of External Objects* (III.) (*Reply to Professor Stout*) (pp. 161–180): H. W. B. JOSEPH. – A rejoinder to an earlier reply from Professor Stout. Objections are reasserted to certain fundamental positions in Professor Stout's psychology, maintaining that the removal of certain admitted confusions requires "a revision of his principles." *The Humanism of Protagoras* (pp. 181–196): F. C. S. SCHILLER. – Further discussion touching the question as to "how far the absolutism of Plato can be regarded as a successful reply to the relativism of the fifth century B.C." *The Ground of Appearances* (pp. 196–211): E. D. FAWCETT. – "The main contention is that Nature and conscious individuals are evolved in time out of what can be best likened—not to a Cosmic Reason or Will, etc., but—to Imagination." *Dualism, Parallelism and Infinitism* (pp. 212–234): ALFRED H. LLOYD. – The history of thought, it is said, reveals three ages, the age of dualism or medieval christendom, the age of parallelism or that of modern christendom since Bacon and Descartes,

[1] *Op. cit.*, IV., pp. 3–4.

and the beginning of a new age termed infinitism. The relation of the new age to the first two is considered. *The "Meaning" and "Test" of Truth* (235–242): J. W. SNELLMAN. – An examination of Mr. Bertrand Russell's criticisms of pragmatism contained in his "Philosophical Essays." *Discussions: Aristotle and the Philosophy of Evolution* (pp. 243–247): A. W. BENN. *"Real Kinds" and "General Laws"* (pp. 248–251): S. H. MELLONE. *Plato's Ideal Numbers* (pp. 252–255): R. PETRIE. *The Humanist Theory of Value* (pp. 256–257): OLIVER C. QUICK. *Feeling and Thought* (258–260): E. B. TITCHENER. *Critical Notes:* Henry Jones, *The Working Faith and the Social Reformer, and other Essays:* H. RASHDALL. Guy Montrose Whipple, *Manual of Mental and Physical Tests:* W. H. WINCH. *Ernst Untermann, Die Logischen Mängel des engeren Marxismus:* S. J. CHAPMAN. Henriette Roland-Holst, *Josef Dietzgens Philosophie:* S. J. CHAPMAN. *New Books. Philosophical Periodicals. Note. Mind Association.*

THE JOURNAL OF ABNORMAL PSYCHOLOGY. April–May, 1911. *Psychotherapy and Reeducation* (pp. 1–10): JOHN E. DONLEY. – Reeducation is the *summum bonum* of psychotherapy. But a certain enthusiastic cooperation on the patient's part is necessary to successful treatment. *Some Instances of the Influence of Dreams on Waking Life* (pp. 11–18): ERNEST JONES. – Several interesting clinical cases in which dreams have directed the patient's conduct; all three types of influence, conscious, half-conscious, and unconscious, are found. *The Detection of a Case of Simulation of Insanity by Means of Association Tests* (pp. 19–32): EDWIN W. KATZEN-ELLENBOGEN. – A highwayman gives himself away by conspicuous retardation and modification and selection of associated words. *A Contribution to the Psychopathology of Hysteria* (pp. 33–65): ISADOR H. CORIAT. – A history, psychoanalysia, association tests, dream analysis, record of automatism, and an interpretation of a hysterical young woman. The investigator concludes that the case shows the utility of Freud's hypothesis but does not demonstrate its complete accuracy. Other than sexual factors are at work in hysteria. Abstracts: George H. Savage, *The Harveian Oration on Experimental Psychology and Hypnotism:* H. J. WESSEL. Ed. Claparède and W. Beade, *Experimental Researches upon Some Elementary Psychic Processes in Hypnosis:* I. H. CORIAT. Daniel Starch, *Mental Processes and Concomitant Galvanometric Changes:* EDW. B. HOLT. Tom A. Williams, *The Traumatic Neurosis:* TOM A. WILLIAMS. Reviews: J. W. Courtney, George L. Walton, *Those Nerves:* ERNEST JONES. *Jahrbuch für Psychoanalytische und Psychopathologische Forschungen, Vol. II.*

Kesseler, Kurt. Rudolf Euckens Werk. Bunzlau: G. Kreuschmer. 1911. Pp. xii + 135.

Meredith, James Creed. Kant's Critique of Æsthetic Judgment. Translated with seven introductory essays, notes, and an analytical index. Oxford: The Clarendon Press. 1911. Pp. clxx + 333. 10s. 6d.

Monroe, Will S. and Miss Anna Buckbee. Our Country and its People. New York: Harper & Brothers. 1911. Pp. xli + 130. $.40.

NOTES AND NEWS

FROM the West London Ethical Society we have received a little book containing "Two Responsive Services in the Form and Spirit of the Litany and the Ten Commandments," prepared by Dr. Stanton Coit. The very great value of responsive services in forming moral and religious habits and the conviction that "the Litany, in its original wording, is the most universally humane, tender, loving, and purifying document ever written," and that the Jewish Decalogue "is the most majestic, strenuous and strengthening utterance that ever emanated from a suffering and struggling nation's heart," have led Dr. Coit to prepare a modernized version of these great documents in the hope that those who can no longer use the old forms with sincerity may find no similar impediment in the use of the new. As an example of the attempt to modernize the Litany, we quote the following passage from Dr. Coit's commentary entitled "The Litany and Modern Life":

> As one instance of my own attempt to appropriate to the needs of our day the form and spirit of the Litany, compare the adaptation here given with that portion of the original where it says—
>
> "That it may please thee to preserve all that travel by land or by water, all women labouring of child, all sick persons and young children, and to show thy pity upon all prisoners and captives,
>
> "*We beseech thee to hear us, good Lord.*"
>
> We notice, in the first place, that the specific reference to the dangers of travel by land and by water harks back to a far past age. There is no longer any special danger to travellers from thieves and murderers; and it is maintained by statisticians that a man is as safe from accident to-day, when traveling by rail or by steamship, as when lying in his own bed. There are exceptional dangers, to be sure, in motoring and aeroplaning, but there is no necessity, as yet, constraining us to such enterprises. The phrase, accordingly, "to preserve all that travel by land or by water" may very well fall away.

Not only are the petitions of the Litany modified in the spirit of the quoted passage, but the responsive supplication which in the Church's form recurs as a refrain, "We beseech thee to hear us, good Lord," is modernized into such phrases as "Is our high task and privilege." We do not doubt the sincerity of purpose of the book, nor question for one moment the value for moral habits of public services in which all mention of God and the supernatural have been eliminated. But we do very much question the value of modernizing ancient documents like the Litany and the Ten Commandments. One who knows that his people for generations have been accustomed to pray,

> That it may please thee to give us true repentance; to forgive us all our sins, negligences, and ignorances; and to endue us with the grace of thy Holy Spirit to amend our lives according to thy holy Word:
>
> *We beseech thee to hear us, good Lord,*

must feel that there is a descent when for such a petition is substituted:

> That we may feel true repentance; forgive one another's sins, negligences and ignorances; and be endued with power to amend our lives according to the principles of unselfish love,
>
> *Is the deep yearning of our hearts.*

THE Somerset Archeological and Natural History Society has resumed work on the Meare Lake village, under the control of Messrs. A. Bulleid and H. St. George Gray. Besides various late-Celtic relics similar to those already discovered, Mound 7 has produced a class of objects hitherto not found elsewhere, including a number of worked and polished shoulder-bones of animals, the blade-bones being in some cases ornamented in the dot-and-circle pattern. Kimmeridge shale is rather plentiful for a substance imported from Dorset. Little bronze has so far been found, the objects including finger-rings, an awl, and a rivet. Some much-corroded iron objects, such as a knife and chisel, have been unearthed. Human remains are scarce, only two pieces of skull-bone having been found. Pottery is plentiful, and of a type differing in design from that found at the Glastonbury Lake village. As is evident from the number of bones of various kinds, the people occupying this site lived largely on meat. They possessed an ox and horse of a small type, a large variety of dog, and remains of the beaver and otter have been discovered. The relics which have been up to this time found are open to inspection at a temporary museum on the site, whence later on they will be removed to the County Museum at Taunton Castle.—*Nature.*

IN the July issue of *Man,* Messrs. N. F. Robarts and H. C. Collyer continue their report on the excavation of the British camp at Wallington. The numerous loose unbroken flints found on the inner side of the ditch seem to have been used as missiles, and round Tertiary pebbles were employed as sling-stones. A large collection of implements used in the preparation of food was made, the most common, probably because they were the most indestructible, being saddle-back mealing stones, made of the Lower Greensand sandstone. Many tiles, resembling those from the Swiss Lake dwellings, were discovered. Though there were many flakes and cores, stone implements were scanty in number. A broken axe of diorite indicates foreign commerce. Further exploration of the large remaining portion of the ditch will doubtless provide many other similar articles, but the specimens already unearthed are sufficient to give a tolerably clear idea of the civilization, arts, and industries of the inhabitants of this Surrey town in the first or second century B.C.—*Nature.*

THE third edition of the "Grammar of Science," by Karl Pearson, is divided into two volumes the first of which has appeared under the title, "Part I.—Physical." There are two new chapters, one on Causation by Professor Pearson and another on Modern Physical Ideas by Professor Cunningham. The second volume dealing with living forms is promised shortly. The work is published by Macmillan.

PROFESSOR KARL PEARSON, F.R.S., has been appointed to be the first occupant of the chair of eugenics in the University of London, established by the legacy bequeathed for that purpose by the late Sir Francis Galton.

DR. JOHN BEDDOE, F.R.S., noted for his anthropological observations on the physical characters of living races, died on July 19, at Bradford-on-Avon.